BEFORE THE DIVISION OF OIL AND GAS CONSERVATION DEPARTMENT OF NATURAL RESOURCES IN AND FOR THE STATE OF UTAH

IN THE MATTER OF THE APPLICATION OF)
AMERICAN QUASAR PETROLEUM COMPANY)
OF NEW MEXICO, FOR AN ORDER)
ESTABLISHING TEMPORARY DRILLING)
UNITS FOR CERTAIN LANDS SITUATED)
IN RICH COUNTY, UTAH)

Order:

FINDINGS OF FACT, CONCLUSIONS OF LAW, AND ORDER

Cause No. 169-1

This cause came on regularly before the Board of Oil, Gas and Mining, ("Board") and was heard pursuant to due and proper application and notice of hearing on the 25th day of October, 1977, in the Executive Room of the Holiday Inn, 1659 West North Temple, Salt Lake City, Utah. The following named Board Members (constituting a quorum of the "Board") were present and, in accordance with the law, participated in the hearing of all matters and decisions resulting in this

I. Daniel Stewart, Chairman Charles R. Henderson, Board Member John L. Bell, Board Member C. Ray Juvelin, Board Member

The following members of the Board Staff were also present and participating:

Cleon B. Feight, Director, Division of Oil, Gas, and Mining Patrick L. Driscoll, Chief Petroleum Engineer, Division of Oil, Gas, and Mining Appearances of counsel were made as follows:

Frank J. Gustin, Salt Lake City, Utah, attorney representing American Quasar Petroleum Co., the applicant herein.

No attorneys appeared on behalf of any interested party in opposition to the application of American Quasar Petroleum Co.

NOW, THEREFORE, the Board having fully considered the testimony of all witnesses, statements of others and exhibits

introduced and received in the course of said hearing and in all respects being fully advised in the premises, makes and enters the following Findings of Fact, Conclusions of Law and Order:

FINDINGS OF FACT

1. Applicant, American Quasar Petroleum Co. of

- 1. Applicant, American Quasar Petroleum Co. of
 New Mexico, owns working interests and operating rights in
 Rich County, Utah, in the area hereinafter more particularly
 described.
- 2. Applicant has drilled and successfully tested its Hogback Ridge 20-1 well, located 1980' FSL and 660' FEL of Section 20, Township 13N, Range 7E, SLM, Rich County, State of Utah, which well is capable of producing gas and associated hydrocarbons in commercial quantities from the Dinwoody Formation and the Phosphoria Formation which formations underlie said property.
- 3. That the Dinwoody Formation, for all purposes herein, is defined as that stratigraphic interval from 9,428' to 10,110' subsurface as defined in Schlumberger's Compensated Neutron Formation Density Log for the Hogback Ridge 20-1 well.
- 4. That the Phosphoria Formation, for all purposes herein, is defined as that stratigraphic interval from 10,062' to 10,514' subsurface as defined in Schlumberger's Borehole Compensated Sonic Log for the Hogback Ridge 20-1 well.
- 5. In order to prevent waste of gas and associated hydrocarbons and to avoid the drilling of unnecessary wells, protect correlative rights and to insure the greatest possible economic recovery of such substances, temporary 640 acre spacing and drilling units should be established for a

period of one year from the date hereof for the following lands, in Rich County, Utah, to-wit:

Township	13 Nort	h, Range	7	East
Sec. 15:	All	Sec.	27:	A11
Sec. 16:	A11	Sec.	28:	A11
Sec. 17:	All	Sec.	29:	All
Sec. 18:	All	Sec.	30:	All
Sec. 19:	All	Sec.	31:	A11
Sec. 20:	A11	Sec.	32:	A11
Sec. 21:	All	Sec.	33:	All
Sec. 22:	All	Sec.	34:	All

That the sections located in Township 12N as shown on Exhibit "H-1" are not of standard 640 acre size and should not be included in the spaced area at this time.

- 6. That the bottom hole location for each well drilled on the temporary 640 acre drilling and spacing units should be located within the surface boundary of the interior governmental quarter/quarter sections of each section, i.e. (SWNE, SENW, NWSE and NESW) and the surface location of each well should be located anywhere within the 640 acre governmental section so as to give sufficient topographic latitude for the drilling of each well.
- 7. That the maximum area that can be efficiently and economically drained by one well producing from the Dinwoody Formation is not greater nor smaller than 640 acres.
- 8. That the maximum area that can be efficiently and economically drained by one well producing from the Phosphoria Formation is not greater nor smaller than 640 acres.
- 9. The drilling of the Hogback Ridge 20-1 well was commenced in Section 20 at the location described in Paragraph 2 above but, due to the complicated geology in the area, the bottom hole of said well culminated in Section 21, Township 13N, Range 7E, Rich County, Utah, which is 1754.91'N 88°13' 22"E of the surface location. That the Hogback Ridge 20-1 well should be established as an exception location and made

the drilling unit well for Section 21.

- tion are separated by approximately 300' of shale and the gas produced from the Phosphoria Formation contains quantities of hydrogen sulphide not present in the gas produced from the Dinwoody Formation; that the Dinwoody Formation and Phosphoria Formation are separate formations and constitute separate "pools" as that term is defined under the laws of the State of Utah. The drill holes drilled on the 640 acre spacing units should be of adequate size to allow for multiple completions into the Dinwoody and Phosphoria Formations with the exception of the 20-1 well which is too small in diameter to allow for dual completion; that there should be no comingling of gas from the Phosphoria and Dinwoody Formations.
- 11. That the bridge plug located in the 20-1 well, sealing off production from the Phosphoria Formation, should be maintained until further Order of the Board.

That pursuant to the foregoing Findings of Fact, the Board hereby makes the following:

CONCLUSIONS OF LAW

1. The Board has jurisdiction over all matters covered by the Application of American Quasar Petroleum Co. for an Order establishing temporary 640 acre drilling and spacing units for the following lands in Rich County, Utah.

Townshi	p 13	North,	Range	e 7 1	East
Sec. 15	: Al	1	Sec.	27:	A11
Sec. 16	: Al	1	Sec.	28:	A11
Sec. 17	': Al	1	Sec.	29:	A11
Sec. 18	3: Al	1	Sec.	30:	All
Sec. 19): Al	1	Sec.	31:	All
Sec. 20): Al	1	Sec.	32:	All
Sec. 21	: Al	1	Sec.	33:	A11
Sec. 22	2: Al	1	Sec.	34:	A11

2. That the Board has jurisdiction by virtue of

the Notice of Hearing over the subject land and mineral leases covered by the application and all parties interested in said subject lands as their respective interests appear. Further, the Board has authority, under applicable law, to make and enter the Order set forth below.

3. That due, proper and regular notice of the time, place and purpose of the hearing was given to all interested parties in the form and manner and within the time prescribed by the applicable statutes, rules and regulations of the

4. American Quasar Petroleum Co. has drilled, and successfully tested its Hogback Ridge 20-1 well located 1980' FLS and 660' FEL of Section 20, Township 13N, Range 7E, SLM, Rich County, State of Utah, which well is capable of producing gas and associated hydrocarbons in commercial quantities from the Dinwoody Formation and the Phosphoria

Formation which formations underlie said property.

- 5. The Dinwoody Formation, for all purposes herein, is defined as that stratigraphic interval from 9,428' to 10,110' subsurface as defined in Schlumberger's Compensated Neutron Formation Density Log for the Hogback Ridge 20-1 well.
- 6. The Phosphoria Formation, for all purposes herein, is defined as that stratigraphic interval from 10,062' to 10,514' subsurface as defined in Schlumberger's Borehole Compensated Sonic Log for the Hogback Ridge 20-1 well.
- 7. In order to prevent waste of gas and associated hydrocarbons and to avoid the drilling of unnecessary wells, protect correlative rights and to insure the greatest possible economic recovery of such substances, temporary 640 acre spacing and drilling units should be established for a period of one year from date hereof for the property described in

Paragraph One above located in Rich County, Utah.

That the lands located in Township 2N, as shown on Exhibit "H-1" should not be included in the spaced area at this time.

- 8. The bottom hole location for each well drilled on the temporary 640 acre drilling and spacing units should be located within the surface boundary of the interior governmental quarter/quarter sections of each section, i.e. (SWNE, SENW, NWSE and NESW), and the surface location of each well should be located anywhere within the 640 acre governmental section so as to give sufficient topographic latitude for the drilling of each well.
- 9. The maximum area that can be efficiently and economically drained by one well producing from the Dinwoody Formation is not greater nor smaller than 640 acres.
- 10. The maximum area that can be efficiently and economically drained by one well producing from the Phosphoria Formation is not greater nor smaller than 640 acres.
- 11. The drilling of the Hogback Ridge 20-1 well was commenced in Section 20 at the location described in Paragraph Four above, but due to the complicated geology in the area, the bottom hole of said well culminated in Section 21, Township 13N, Range 7E, Rich County, Utah, which is 1754.91' N 88° 13'22" E of the surface location. The Hogback Ridge 20-1 well should be established as an exception location and made the drilling unit well for Section 21.
- 12. The Dinwoody Formation and the Phosphoria Formation are separate formations and constitute separate "pools" as that term is defined under the laws of the State of Utah. The drill holes drilled on the 640 acre spacing units should be of adequate size to allow for multiple completions into

The Dinwoody and Phosphoria Formations, with the exception of the 20-1 well which is too small in diameter to allow for dual completion; that there should be no comingling of gas from the Phosphoria and Dinwoody Formations.

- 13. The bridge plug located in the 20-1 well, sealing off production from the Phosphoria Formation, should be maintained until further Order of the Board.
- 14. A directional survey should be furnished to the Board for every well which is drilled within the area described in Paragraph One hereof.
- 15. The Board should retain and reserve continuing jurisdiction to make such further Orders in the premises as it may deem appropriate and it may be authorized to make by statute and applicable regulations.

That pursuant to the foregoing Findings of Fact and Conclusions of Law, the Board hereby makes the following:

ORDER

1. The Application of American Quasar Petroleum Co. for an Order establishing temporary 640 acre drilling and spacing units be, and the same is hereby granted, and temporary 640 acre drilling and spacing units are hereby established for the following described property in Rich County, Utah:

Townshi	ip 13	North,	Range	7	East
Sec. 15	5: Al	1	Sec.	27:	A11
Sec. 16	5: Al	1	Sec.	28:	All
Sec. 1	7: Al	1	Sec.	29:	All
Sec. 18	3: Al	1	Sec.	30:	All
Sec. 19	9: Al	1	Sec.	31:	All
Sec. 20): Al	1	Sec.	32:	All
Sec. 2			Sec.	33:	All
Sec. 2			Sec.	34:	All

2. That the Hogback Ridge 20-1 well located 1980' FSL and 660' FEL of Section 20, Township 13N, Range 7E, SLM,

Rich County, Utah, be and the same is hereby established as an exception location and said well is hereby declared the drilling unit well for Section 21.

- 3. The bottom hole location for each well drilled on the temporary 640 acre drilling and spacing units are hereby Ordered to be located within the surface boundary of the interior governmental quarter/quarter sections of each section, i.e. (SWNE, SENW, NWSE and NESW), and the surface locations of each well are hereby Ordered to be located anywhere within the 640 acre governmental section.
- 4. The drill holes drilled on the 640 acre spacing units are hereby Ordered to be of adequate size to allow for multiple completions into the Dinwoody and Phosphoria Formations, with the exception of the 20-1 well which is too small in diameter to allow for dual completion.
- 5. It is hereby Ordered that there shall be no comingling of gas from the Phosphoria and Dinwoody Formations, and the bridge plug located in the 20-1 well, sealing off production from the Phosphoria Formation, is hereby Ordered to be maintained until further Order of the Board.
- 6. Applicant be and it is hereby Ordered to furnish to the Board a directional survey for every well which is drilled within the area described in Paragraph One hereof.
- 7. The Board hereby retains and reserves continuing jurisdiction to make such further Orders in the premises as it may deem appropriate and as it may be authorized by statute and applicable regulations to make.

DATED this & day of Citabil , 1998.

BOARD OF OIL, GAS AND MINING

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